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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,868	03/22/2004	Russel A. Brezler III	AD6754USDIV	1788

23906 7590 07/28/2004

E I DU PONT DE NEMOURS AND COMPANY
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WILMINGTON, DE 19805

EXAMINER

COLE, LAURA C

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

CP mr

Office Action Summary	Application No.	Applicant(s)	
	10/805,868	BREZLER ET AL.	
	Examiner	Art Unit	
	Laura C Cole	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3223004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-5, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Needham et al., USPN 6,270,895.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Needham et al. disclose a glitter containing filaments for use in brushes (including toothbrushes, see Abstract Line 15) that comprises bristles that are prepared from a composition comprising of a thermoplastic polymeric resin in admixture with a slip agent (Column 3 Lines 54-64), and wherein the thermoplastic polymeric resin is a polyamide which is nylon 6,12 (Column 2 Lines

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35-41). The slip agent comprises boron nitride or graphite (Column 3 Lines 59-64). The composition comprises the slip agent in an amount of 0.1% to 10% by weight based on the total weight of the filament (Column 3 Lines 54-57).

Needham et al. provide a toothbrush and is inherently used to clean teeth by applying the brush to the surface of a tooth.

2. Claims 1-5, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Antonio, USPN 6,482,511.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Antonio discloses laser markable monofilaments that is used for brushes (including toothbrushes, see Abstract Line 6) that comprises bristles that are prepared from a composition comprising of a thermoplastic polymeric resin in admixture with a slip agent (Abstract Lines 1-4; Column 1 Lines 29-39), and wherein the thermoplastic polymeric resin is a polyamide which is nylon 6,12 (Column 2 Lines 12-15). The slip agent may comprise of graphite (Column 2 Line 28) and further may include talc (Column 2 Line 60). The composition comprises the slip agent in an amount of 0.1% to 5% by weight based on the

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total weight (Column 2 Lines 43-55). Antonio provides a toothbrush and is inherently used to clean teeth by applying the brush to the surface of a tooth.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cross, USPN 2,670,489 in view of Gueret, USPN 5,462,798.

Cross discloses the claimed invention including providing a toothbrush that comprises bristles that are prepared from a composition comprising a thermoplastic polymeric resin in admixture with an agent (Column 1 Lines 6-10), and inherently since that Cross discloses a toothbrush, there is a method step of applying the brush to the surface of one or more teeth to clean the teeth. Cross includes agents such as abrasives, medicinal or other agents (Column 1 Lines 23-28) however do not include a "slip agent."

Gueret provides a brush for applying a liquid product comprising bristles that are prepared from a composition comprising of a thermoplastic polymeric resin in admixture with a slip agent (Abstract Lines 1-4), wherein the thermoplastic polymeric resin is a polyamide which is nylon 6,12 ((also known as polyamide 6,12 Column 1 Lines 44-50), and wherein the slip agent is a fluorinated olefin polymer, more specifically PTFE (or Teflon® Column 1 Lines

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37-39) in the amount of 0.2% to 15% by weight (Column 1 Lines 29-36). The slip agent is used in order to improve upon the "slip characteristic of the fiber and reducing its wettability by water and/or by solvents" (Column 1 Lines 37-39).

It would have been obvious for one of ordinary skill in the art to substitute the agent of Cross for a slip agent, such as the one Gueret teaches, so that the slip characteristics of the bristles are improved when the toothbrush is wetted or toothpaste is applied.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al., USPN 6,270,895 in view of Stewart, USPN 2,876,477.

Needham et al. discloses the method above, however does not include providing a toothbrush that is specifically mounted so that the bristles extend out from a planar surface.

Stewart discloses a toothbrush with the bristles conventionally mounted from a planar surface to engage a user's teeth.

It would have been obvious for one of ordinary skill in the art to modify Needham et al. by providing a mounting structure such as a planar surface as a means of supporting the bristles while brushing teeth.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Antonio, USPN 6,482,511 in view of Stewart, USPN 2,876,477.

Antonio discloses the method above, however does not include providing a toothbrush that is specifically mounted so that the bristles extend out from a planar surface.

Stewart discloses a toothbrush with the bristles conventionally mounted from a planar surface to engage a user's teeth.

It would have been obvious for one of ordinary skill in the art to modify Needham et al. by providing a mounting structure such as a planar surface as a means of supporting the bristles while brushing teeth.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cross, USPN 2,670,489 in view of Gueret, USPN 5,462,798 in view of Stewart, USPN 2,876,477.

Cross and Gueret disclose the method above, however does not include providing a toothbrush that is specifically mounted so that the bristles extend out from a planar surface.

Stewart discloses a toothbrush with the bristles conventionally mounted from a planar surface to engage a user's teeth.

It would have been obvious for one of ordinary skill in the art to modify Cross and Gueret by providing a mounting structure such as a planar surface as a means of supporting the bristles while brushing teeth.

7. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al., USPN 6,270,895 in view of Dumler et al., USPN 5,638,568.

Needham et al. discloses the method above, however does not include providing a toothbrush that is specifically mounted so that they extend radially about from a central axis in multiple directions and are clasped by a twisted wire.

Dumler et al. disclose a toothbrush having a plurality of bristles (4) that extend radially from a central axis (see Figure 1) that are also clasped by a twisted wire (3).

It would have been obvious for one of ordinary skill in the art to modify Needham et al. by providing a mounting structure such as mounting them radially, as Dumler et al. teach, to better clean around the contours of teeth and interdentally.

8. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antonio, USPN 6,482,511 in view of Dumler et al., USPN 5,638,568.

Antonio discloses the method above, however does not include providing a toothbrush that is specifically mounted so that they extend radially about from a central axis in multiple directions and are clasped by a twisted wire.

Dumler et al. disclose a toothbrush having a plurality of bristles (4) that extend radially from a central axis (see Figure 1) that are also clasped by a twisted wire (3).

It would have been obvious for one of ordinary skill in the art to modify Antonio by providing a mounting structure such as mounting them radially, as Dumler et al. teach, to better clean around the contours of teeth and interdentally.

9. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cross, USPN 2,670,489 in view of Gueret, USPN 5,462,798 in view of Dumler et al., USPN 5,638,568.

Cross and Gueret disclose the method above, however does not include providing a toothbrush that is specifically mounted so that they extend radially about from a central axis in multiple directions and are clasped by a twisted wire.

Dumler et al. disclose a toothbrush having a plurality of bristles (4) that extend radially from a central axis (see Figure 1) that are also clasped by a twisted wire (3).

It would have been obvious for one of ordinary skill in the art to modify Cross and Gueret by providing a mounting structure such as mounting them radially, as Dumler et al. teach, to better clean around the contours of teeth and interdentally.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LCC
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22 July 2004

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